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Faktor determinan yang mempengaruhi Stunting pada anak (usia 0-59 bulan) di beberapa negara Asia Tenggara

Determinants of stunting children (0-59 months) in some countries in Southeast Asia

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ABSTRACT

Stunting is one of the main nutritional problems caused by malnutrition in children under 5 years old. Risk factors of stunting influenced by socio-economic, Infant and Young Child Feeding (IYCF), child illnesses, Water Sanitation and Hygiene (WASH). These factors vary considerably accros the nation in southeast asia. The aim of this study was to determine the factors affecting in stunting of children (0-59 months) in Southeast Asia. It is needed to identified the right intervention.

This systematic review was conducted using the Preferred Reporting Items for Systematic reviews and Meta-Analysis (PRISMA) guidelines. Articles were searched by using pubMed database. The literature search outline in the methods indentified 14.790 articles discuss stunting. We identified 60 articles potentially met all criteria using PubMed advanced search strategy. A total of 60 articles were retrieved from one database (PubMed), 11 articles met the inclusion criteria for stunting in Southeast Asia countries.

In our review socio-economic status was reported as one of consistent factors associated with stunting in Cambodia, Myanmar, Indonesia, Laos, Thailand, and Malaysia. Low household income and lack education of mother influenced inappropriate IYCF practice, poor hygiene and sanitation, and care of child illnesses.

Improving like income and maternal exposure to nutrition and health information especially for the topics of growth and development, appropriated IYCF, hygiene, sanitation, and child illnesses are required for continuous improvement in a specific strategy that involves many factors.

ABSTRAK

Stunting adalah salah satu masalah gizi utama yang disebabkan oleh kekurangan gizi pada anak-anak usia dibawah 5 tahun. Faktor risiko stunting dipengaruhi oleh sosial ekonomi, Infant And Young Child Feeding (IYCF), penyakit infeksi, dan Water Sanitation and Hygiene (WASH). Faktor-faktor ini bervariasi diantara negara-negara Asia Tenggara sehingga diperlukan identifikasi mengenai faktor yang paling berpengaruh untuk merencanakan intervensi yang tepat

Penelitian ini menggunakan metode systematic review dengan pendekatan Preferred Reporting Items for Systematic reviews and Meta-Analysis (PRISMA). Artikel diperoleh dari data base jurnal yaitu PubMed. Dari 14.790 artikel diidentifikasi hanya 60 artikel yang sesuai kemudain diperoleh 11 artikel yang memenuhi kriteria inklusi dan eksklusi yang berhubungan dengan stunting dibeberapa Negara Asia Tenggara

Berdasarkan hasil systematic review, sosial ekonomi merupakan salah satu faktor yang berhubungan dengan stunting di setiap negara Asia Tenggara. Pendapatan rumah tangga yang rendah, kurangnya pendidikan ibu, Praktek IYCF yang tidak sesuai, WASH, dan penyakit infeksi juga merupakan faktor yang memengaruhi stunting di negara Kamboja, Myanmar, Indonesia, Laos, Thailand, dan Malaysia

Peningkatan sosial ekonomi seperti pendapatan ibu, perkembangan informasi kesehatan, peningkatan IYCF, WASH, dan penurunan penyakit infeksi diperlukan untuk melakukan perbaikan berkelanjutan dalam strategi spesifik yang melibatkan banyak faktor.

Keywords : *children under five years, socio-economic, sout heast asia, stunting*

Kata Kunci : balita, sosial ekonomi, Asia Tenggara, stunting

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INTRODUCTION

Improving the nutritional status of children is a priority in child health. The global burden of undernutrition among children is enormous. Worldwide, more than 300 million children younger than 5 years are estimated to be chronically undernourished (Stevens GA, Finucane MM, Paciorek CJ, Flaxman SR, White RA, Donner AJ, et al, 2012) and globally affecting approximately 165 million children under the age of 5 years were stunting (World Health Organization, 2012). Stunting, or being too short for one's age is defined as a height that is more than two standard deviations below the World Health Organization (WHO) Child Growth Standards median World Health Organization. (2018).

The physical growth of children within a normative range has important implications both within that age span and into adulthood (Bhutta ZA, Das JK, Rizvi A, Gaffey MF, Walker N, Horton S, et al, 2013). Insufficient gains in length/height and weight from birth to age 5 years, resulting from childhood undernutrition, put the child at increased risk of morbidity and mortality from infectious diseases (proportion of total death of children under 5 years old is 17 %), as well as impaired mental development, reduced learning capacity in school, and lower earning potential as an adult, among other effects (Victora CG, Adair L, Fall C, Hallal PC, Martorell R, Richter L, et al. ,2008).

Stunting is a largely irreversible outcome of inadequate nutrition and repeated bouts of infection during the first 1000 days of a child's life. It's mean that we should pay attention to maternal nutritional status, new born and child under 2 years old. Since then, there has been an increased commitment by countries to focus on effective interventions during the opportune window to intervene to prevent malnutrition during the "first 1,000 days," from pregnancy through the first 2 years of life, when interventions will have a high return.

Asia leads other world regions with not only the highest percentage of children under 5 who are underweight or wasted (21.9% and 11.2% respectively, as of 2011), but given the population density across the region, it is also home to the greatest total number of children under 5 who are stunted, wasted, or underweight (103.5 million, 39.2 million, and 76.6 million, respectively, as of 2011 (Black RE, Victora CG, Walker SP, Bhutta ZA, Christian P, De Onis M, et al, 2013). Of the five sub-regions in Asia, Southeast Asia has the second highest prevalence and total number of children who are stunted (29.4%, 15.6 million), wasted (9.4%, 5.0 million) and underweight (18.3%, 9.7 million).

Some countries in Southeast Asia (Indonesia, Philippines, Vietnam, Myanmar, Malaysia, Thailand, Laos, and Cambodian) belong to the 20 countries with the highest burden of malnutrition which constitute 80% of the world's undernourished children (Bryce J, Coitinho D, Darnton-Hill I, Pelletier D, Pinstrup-Andersen P. (2008). For each country, prevalence of stunting in Indonesia is 37,2 % (Ministry of Health. Basic health research survey /Riset kesehatan dasar, 2013) higher than Philippines 33,6 % (Food and Nutrition Research Institute, 2012) and Vietnam 22,7 % (Committee for Population Family and Children and ORC Macro, 2011). Stunting among children under 5 has been declining in Burma, Cambodia, and Vietnam since 2000. In Indonesia and Laos, stunting has remained relatively stable, whereas in the Philippines and Timor-Leste, stunting prevalence has actually increased between the last two surveys. Slightly better progress has been made in terms of underweight in Burma, Cambodia, Laos, and Vietnam, but in the Philippines no progress has been made since 2003 and in Indonesia prevalence actually increased since 2010 (Chaparro C, Oot L, Sethuraman K, 2014).

Southeast Asia has joined the SUN Movement and this is an opportunity for reducing malnutrition. A key focus in this region is improving exclusive breastfeeding, diversity diet, quality of water, sanitation, and hygiene practices to improve nutrition and reduce infections. To examine the relationship further, this study utilized a systematic review from journal that used the cross-sectional survey in some countries (Indonesia, Vietnam, Myanmar, Malaysia, Thailand, Laos, and Cambodian) with determinants of stunting and severe stunting in children. The aim of this study was to determine the factors affecting in stunting of children (0-59 months) in Southeast Asia. It is needed to identified the right intervention.

METHODS

Anthropometric Indicator

Studies were focused on stunting (Height-for-age) on children with a Z-score below minus two standard deviations (-2 SD) from the median of the WHO reference population.

Search Strategy

This systematic review was conducted using the Preferred Reporting Items for Systematic reviews and Meta-Analysis (PRISMA) guidelines. Articles were searched by using PubMed database.

The following combination of keywords was used in the search: stunting AND infant AND children AND Southeast Asia AND cross sectional. Critical appraisal was conducted using Centre for Evidence-Based Medicine (CEBM)

Inclusion Criteria

Studies were included in the review if they (1) focused on children under-five years; (2) in Southeast Asia (3) analysed determinants of stunting: intake, breastfeeding, complementary

food, Low Birth Weight (LBW), vaccination, economy, maternal education and Water, Air, Sanitation, Hygiene (WASH) (4) were published between 2008 - 2017; (5) were cross-sectional.

Exclusion Criteria

Studies were excluded in the review if they were history of chronic disease.

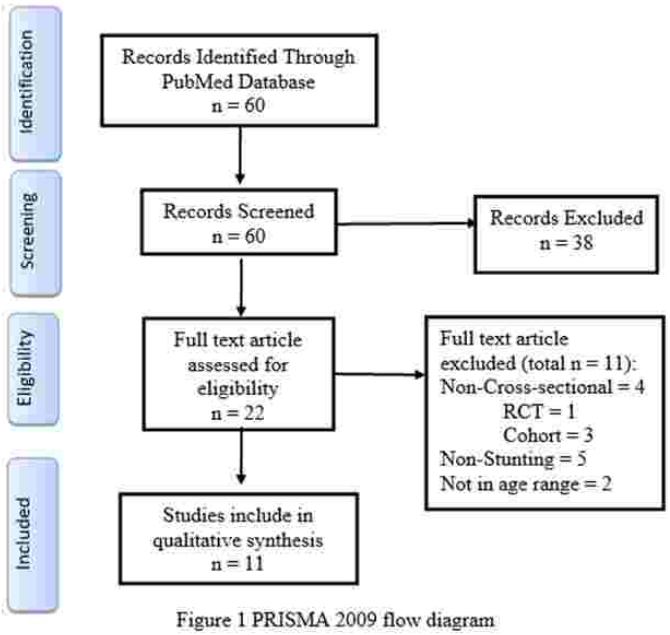

Figure 1 PRISMA 2009 flow diagram

Data Extraction

The authors filter all publications by reading titles and abstracts. In the final stage of screening, the authors read the full text of the remaining articles. The summary of the selected studies were recorded, these included; author, year of publication, country of publication, countries where research was conducted, age of children and determinants of stunting.

RESULT

The literature search outline in the methods identified 14.790 articles discussing stunting. We identified 60 articles potentially met all criteria using PubMed advanced search strategy. A total of 60 articles were retrieved from one database (PubMed). The Abstract of the resulting 60 articles were read and screened which led to the exclusion 38 articles. The full-text of the remaining 22 articles was reviewed and 11 articles were further excluded, 11 articles met the inclusion criteria.

Characteristic of Included Studies

The summary of the studies included in this review of the studies conducted; 3 were in Indonesia; 1 in Myanmar; 1 in Malaysia; 1 in Thailand; 2 in Laos; 2 in Cambodia and 1 were in Vietnam. The 12 criteria based on CEBM (Centre for Evidence-Based Medicine), used to evaluate the quality of included studies. It showed that 4 studies (36,4 %) were high quality, while 5 studies (45,5%) were medium quality and 2 studies (18,2%) were low quality.

Table 1
Summary of Variable for Stunting Determinant at Seven Countries in Southeast Asia

Countries	Variables					
	IYCF	Sanitation	Maternal Health	Maternal Education	Infection	SES
Indonesia	Limwattanon , et al (2010) The World Bank (2018)	Limwattananon , et al (2010) The World Bank (2018)	Limwattananon , et al (2010)	Limwattananon,et al (2010) The World Bank (2018) UNICEF (2011)		Limwattanon et al (2010) UNICEF (2011)
Malaysia	Milward (2017)					Milward (2017)
Thailand				Torlesse, et al (2016)		Torlesse, et al (2016)
Myanmar	Riskesdas (2013)					
Vietnam	Ramli et al (2009)					Ramli et al (2009)
Cambodia	Rawat et al (2017) Reibott et al (2015)	Rawat et al (2017) Reibott et al (2015)	Rawat et al (2017) Reibott et al (2015)		Reibott et al (2015)	Rawat et al (2017) Reibott et al (2015)
Laos	Sahanggamu et al (2017)	Stevens et al (2012)	Sahanggamu et al (2017)	Stevens et al (2012)	Stevens et al (2012)	

Infant and Young Child Feeding (IYCF)

In the 11 included studies with total seven countries, feeding behaviour was found as determinant of stunting in six countries namely Indonesia, Malaysia, Myanmar, Vietnam, Cambodia and Laos. Children in Indonesia who were not given age-appropriate feeding were significantly more likely to be stunted than those who were fed appropriately (31.3 % vs. 24.2 %) (Torlesse H, Cronin AA, Sebayang SK, Nandy R, 2016). Duration of breastfeeding were significantly correlated with Z-score (weight-for-age, height-for-age, MUAC-for-age) in children in rural Kelantan, Malaysia (Cheah WL, Muda WAMW, Zamh Z-H, 2010). In Myanmar there were 145 (18.6%), 583 (72.7%), and 79 (9.8%) children who were introduced to CFs earlier than 4 months of age, between 4 and 8 months of age, and later than 8 months of age, respectively. Introduction of CFs earlier than 4 months of age was a risk factor for being underweight (age-adjusted odds ratio (OR adjust-age) = 1.7, 95% confidence interval (CI) = 1.2–2.5) and for stunting (OR adjust-age = 1.6, 95% CI = 1.1–2.3) (Zhao A, Gao H, Li B, Zhang J, Win NN, Wang P, et al. ,2016). But in Vietnam, although Social Franchising significantly improving Complementary Feeding Practice but it was not improved child growth (Rawat R, Nguyen PH, Tran LM, Hajeebhoy N, Nguyen H Van, Baker J, et al, 2017). In Cambodia, None of the WHO IYCF indicators was associated with LAZ, whereas CFI showed significant association with LAZ (P = 0.01). The association between higher CFI scores and LAZ became weaker as age increased (Reinbott A, Kuchenbecker J, Herrmann J, Jordan I, Muehlhoff E, Kevanna O, et al., 2015). But, in other studies from sub-group analysis in children aged 6–23 months in Cambodia suggest that less frequent feedings are not associated with stunting (Ikeda N, Irie Y, Shibuya K, 2013). Chewed glutinous rice was given to infants as an early (mean 34.6, 95% CI:29.3–39.8 days) complementary food by 53.7% of mothers, and was

associated with stunting in 10% children (OR = 1.35, 95% CI:1.04–1.75) (Barennes H, Simmala C, Odermatt P, Thaybouavone T, Vallee J, Martinez-Aussel B, et al., 2009).

Sanitation

The Hygiene and sanitation variable was found in several countries such Indonesia, Cambodia and Laos. Household sanitation and treatment of drinking water were strong predictors of stunting in a population of children aged 0-23 months in Indonesia, it was stated that unimproved sanitation in household with untreated water was associated with more than twice the odds of stunting in their children (AOR 2.60, 95 % CI 1.37-4.93, P = 0.004) (Torlesse H, Cronin AA, Sebayang SK, Nandy R., 2016). In Cambodia, unimproved sanitation facilities were common in 82% of the households whereas only 13% had an unprotected source of drinking water but, were not significantly associated with length of Age Z score (Reinbott A, Kuchenbecker J, Herrmann J, Jordan I, Muehlhoff E, Kevanna O, et al., 2015). However, another study showed that the rate of access to improved sanitation facilities increased from less than 10% to more than 25% between 2000 and 2010 and affected the prevalence of stunting, particularly among children aged 24–59 months In Cambodia (Ikeda N, Irie Y, Shibuya K., 2013). In Laos, the latrine coverage positively correlated with height-for-age in Children (Kamiya Y, 2011).

Maternal Health

In Laos, Cambodia, and Indonesia, Maternal health was found for one of stunting determinant. In Indonesia, stunting prevalence was significantly lower among children of mothers who had good access to health care as indicated by an inadequate number of ANC visits, ANC care by a doctor or midwife, and ANC at a health facility (Torlesse H, Cronin AA, Sebayang SK, Nandy R, 2016). In Cambodia, Stronger correlations were found between LAZ (Length of Age Z score) and maternal height (r 5 0.27, P = 0.001) (Reinbott A, Kuchenbecker J, Herrmann J, Jordan I, Muehlhoff E, Kevanna O, et al.,2015) .The stunting also significantly correlated with maternal body mass index of < 18.5 kg/m2 (OR = 1.2283 (1.0924–1.3811)) and maternal use of tobacco at the time of the survey (OR = 1.2607 (1.0936–1.4532)) (Ikeda N, Irie Y, Shibuya K, 2013). Multivariate analysis revealed that lack of medical care, unemployment and time since delivery were positively associated with poor maternal nutritional status but there was no association between stunting and maternal food restriction In Laos (Barennes H, Simmala C, Odermatt P, Thaybouavone T, Vallee J, Martinez-Aussel B, et al, 2009).

Maternal Education

In Indonesia, prevalence of stunting was higher among children whose mothers had not completed primary education (43.4 %) or completed primary education (31.0 %) compared with those who had completed high school (23.0 %) (Torlesse H, Cronin AA, Sebayang SK, Nandy R. , 2016). The lack of exposure of maternal health information might directly contribute to mother's knowledge in nutrition, and could indirectly contribute to the nutritional status of under-five children (Sahanggamu PD, Purnomosari L, Dillon D., 2017). In Thailand, Children who were underweight, stunted or wasted were more likely (71%, 61% and 48%, respectively) to have mothers or caregivers with no formal education (4% of 5 million children) than with education beyond secondary school (12% of 5 million children) (Limwattananon S, Tangcharoensathien V, Prakongsai P.,2010). In Laos, both primary and secondary schooling of fathers positively correlated with children's height- and weight-for-age ($p < 0,01$) Kamiya Y. (2011).

Infection

In Cambodia, child stunting showed a statistically significant association with episode of diarrhoea in the child in the two weeks immediately before the survey (OR = 1.2209 (1.0857–1.3731)) (Ikeda N, Irie Y, Shibuya K, 2013). In Laos, the prevalence of childhood diarrhoea had a negative impact on height-for age ($p < 0,1$) (Kamiya Y, 2011).

SES (Socio-Economic Status)

Socio-Economic Status was found as stunting determinant in Indonesia, Malaysia, Thailand, Vietnam and Cambodia. In Indonesia, Children of poorer households, as measured by an asset-based wealth quintile, were significantly more likely to be stunted than wealthier households; the prevalence of stunting ranged from 19.2 % among the highest quintile to 40.1 % among the lowest wealth quintile (Torlesse H, Cronin AA, Sebayang SK, Nandy R, 2016) and in Maluku children aged 0-59 months from least poor families had reduced odds of being severely stunted (Adjusted OR = 0.52, 95%CI: 0.33 - 0.83; p = 0.005) compared with those from middle and poorest families (Ramli, Agho KE, Inder KJ, Bowe SJ, Jacobs J, Dibley MJ, 2009). In Klantan, Malaysia, total household income Beta = 0.68, $p < 0.01$; total expenditure Beta = 0.67, $p < 0.01$; number of rooms in the house Beta = 0.46, $p < 0.01$; and socioeconomic status Beta = 0.71, $p < 0.01$) had a significant effect on malnutrition (Cheah WL, Muda WAMW, Zamh Z-H. (2010). In Thailand, Concentration among the poor was greatest and was statistical significant for child underweight and stunting (Limwattananon S, Tangcharoensathien V, Prakongsai P, 2010). The general improvements in socioeconomic status observed during the study period in Vietnam led to significant improvements in anthropometric indicators over time (Rawat R, Nguyen PH, Tran LM, Hajeebhoy N, Nguyen H Van, Baker J, et al., 2017). In Cambodia, stunting had weak correlation with household's wealth index (r = 0.06, P = 0.088) (Reinbott A, Kuchenbecker J, Herrmann J, Jordan I, Muehlhoff E, Kevanna O, et al.,2015) and in other study, child stunting showed a statistically significant association with household wealth index scores (Ikeda N, Irie Y, Shibuya K, 2013).

DISCUSSION

The important causes of malnutrition in this review is feeding behaviour, sanitation, maternal health, breastfeeding, maternal education, infection and socio-economic status. It can be different variables in some countries in Southeast Asia, such as Indonesia it caused by sanitation, maternal health, breastfeeding, maternal education, infection and socio-economic status. In Myanmar only feeding behaviour is the important of malnutrition. In our review, several countries talk about different variables, such as tables below:

Infant and Young Child Feeding (IYCF)

IYCF has a single greatest potential impact of child survival caused of avoiding children from malnutrition in early childhood and reduction of child mortality (UNICEF, 2011). The IYCF indicators for children aged 6–23 months suggested by the World Health Organization (WHO) include minimum dietary diversity (MDD), minimum meal frequency (MMF) and minimum adequate diet (MAD) (World Health Organization, 2010). Study in Cambodia analyses the relationship between IYCF practices as a base to create Child Feeding Index (CFI) and Length-for-Age Z-score (LAZ). Their findings that the WHO IYCF indicators showed no strong significant association with LAZ scores, but the age of the child and maternal height were significantly association with LAZ. The children of 12–23 months had lower CFI scores than infants and showed lowest LAZ scores, mainly because of the low food frequency and low breastfeeding rates.

Study in Myanmar assessed inappropriate feeding behaviour as important causes of malnutrition. Which highlight time to introduce complementary feeding (CF). Early or later introduction of complementary feeding led to higher risk of malnutrition with the difference health effects. Earlier complementary feeding (< 4 months) is risk factor for underweight, whether later complementary feeding (> 8 months) is risk factor to anaemia. Mother who had anaemia tended toward early introduction of CF. Women with a lower family income tended toward later introduction of CF. Most problem in feeding practice are children do not receive an age-appropriate diet, poor quality of the meal especially low energy and nutrient density and inadequate feeding frequency.

Maternal Education

The level of maternal exposure to nutrition and health information, with low coverage of growth monitoring programs in rural areas, contribute to the prevalence of underweight and stunting among under-five children (Sahanggamu PD, Purnomosari L, Dillon D.,2017). Than, to prevent all cases, evaluation programme is needed to increase the prevalence of adequate complementary feeding. When combined with mass media and community mobilization, an at-scale social franchising approach to improve interpersonal counseling, delivered through the existing health care system, significantly improved complementary feeding practices, but not child growth, among mothers who used counseling services at least once. A greater impact may be achieved with strategies designed to increase service utilization (Rawat R, Nguyen PH, Tran LM, Hajeebhoy N, Nguyen H Van, Baker J, et al., 2017). Even where local resources allow for adequate infant and young child feeding, nutritional knowledge and awareness, and factors such as mothers' available time are crucial to improving the nutritional status of the children.

Maternal Health

Stunting often begin in utero and continuous for at least the first two years of post-natal life. This characteristic pattern of stunting in early childhood has established the period from conception to the first 1000 days as the critical window during which failure to grow is part of an active process of becoming stunted (Victora CG, Adair L, Fall C, Hallal PC, Martorell R, Richter L, et al. , 2008). Maternal health during pregnancy is important for child growth. It is related to nutritional status and health care services in pregnancies. Antenatal care and delivery under health profession supervision is main program for pregnancies. High quality of antenatal care tended to reduce complication and chronic undernutrition during pregnancies also preparing for lactation. Unfortunately, there was a lot of local tradition around pregnancy and lactation that barrier to maternal health. Study in Laos found a high prevalence of traditional practices for woman and their infants in postpartum such as exposure to hot beds embers (97%), use of traditional herb tea as the only beverage (95%) and restricted diets (90%). The impact is mothers had insufficient intake of calories (55.6%), lipids (67.4%), iron (92.0%), vitamins A (99.3%) and C (45%), thiamine (96.6%) and calcium (96.6%) (Barennes H, Simmala C, Odermatt P, Thaybouavone T, Vallee J, Martinez-Aussel B, et al, 2009). Chewed glutinous rice was given to infants as an early, replaced early breastfeeding initiation was associated with stunting in 10% children in Laos. Postpartum tradition and nutritional practice might different according to the region. Changes the tradition that have negative influence to maternal health are needed to reduce malnutrition and even mortality in children.

Infection

Infection is one of direct cause of malnutrition. In our review, infection such as pneumonia and diarrhoea showed significant association with stunting compare with feeding practices (Reinbott A, Kuchenbecker J, Herrmann J, Jordan I, Muehlhoff E, Kevanna O, et al.,2015, Limwattananon S, Tangcharoensathien V, Prakongsai P.,2010). In the context of the stunting syndrome, infection includes specific diagnosed infections such as parasitic infections, (especially malaria and intestinal helminths), and

diarrhoea, particularly in conditions of poor sanitation and hygiene (Millward DJ, 2017). Based on interaction between environment and infection, it should be integrated programs to improve good sanitation and hygiene with immunity herd.

Sanitation

Most studies reported that sanitation is cause of malnutrition in Indonesia, Cambodia, and Laos. It presented from the lack of household sanitary facility and household water treatment in Indonesia. In Cambodia, unimproved sanitation facilities were common in 82% of the households whereas only 13% had an unprotected source of drinking water. The nearest health facility was within one hour's reach of 87% of the households. Children in Laos from the disadvantaged households, in terms of geographical location, ethnicity, parental education, household's asset, availability of local health services, sanitation, and water, suffered a greater risk of being undernourished than those living in the better-off environment. Its mean that sanitation is important thing to increased children's health especially to protect them from infection that result in malnutrition.

SES (Socio-economic Status)

In our review, socio-economic status was reported as one of consistent factors associated with stunting in some countries in Southeast Asia. Households with improved socioeconomic status usually indicate that they are also financially advantaged. After expenditure of income on food and basic necessities. Increased household wealth index score estimated contribution 4,34% to decreased stunting prevalence among children under 5 years old in Cambodia from 2000 to 2010 (Ikeda N, Irie Y, Shibuya K, 2013). We also found that father's education positively correlated with children nutritional status. A high father's education also translate to a higher household income and food security. The availability and access to essential food groups that ensure a supply of nutrients is essential in improving child nutrition. Households with improved socioeconomic status are likely to have children with a higher weight-for-age Z-score. This is in line with the high stunting prevalence in Southeast Asia that are in lower middle income country such as Cambodia, Myanmar, Indonesia, The Philippines, Timor Leste and Vietnam (The World Bank, 2018). Third higher prevalence of stunting are 58,1 % in Timor Leste, 44 % in Laos, 39 % in Cambodia. Stunting among children under 5 years has been declining in Burma, Cambodia and Vietnam since 2000 along with economic growth (Chaparro C, Oot L, Sethuraman K., 2014).

CONCLUSION

Stunting in children under 5 years are multifactorial. There is multi-stage risk factor affecting stunting children. such as IYCF, maternal education, maternal health, infection, sanitation and social economic. Basically, in Southeast Asia determinant factors for stunting is social economic conditions. Country like Cambodia and Vietnam had been declining stunting along with increased social economic and wealth index.

Conflict of Interest

The Authors stated that there are no conflicts of interest

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